LOADSTAR LETTER #57

Wheels 64 OS Is Completed

By Robin Harbron. Maurice Randall announced, most likely with great relief, that Wheels 64 is ready, and will be shipping during the month of May. Maurice did a demonstration of his new GEOS upgrade at the Lansing Area Commodore Club Expo on May 9th. Unlike Bill Gates' recent demonstration of Windows 98 crashing, everything went smoothly, and attendees at the Expo snatched up copies.

The delayed release of Wheels allowed Maurice to iron out many bugs, and even do one thing he believed impossible: allow geoBasic to run within Wheels! GeoBasic apparently used many "illegal" operating system calls, despite being made by Berkley Softworks, the original makers of GEOS.

Most likely I will have received my copy of Wheels before next issue. Look forward to a review!

Maurice is already looking ahead to Wheels 128 – "I'd like to think that Wheels 128 could be ready in about 3 months. But I don't want to commit to that just yet. I'd like to hopefully introduce it by the time the Chicago EXPO comes around in September."

Wheels - the new operating system upgrade for GEOS 64 V2.0. Includes a system disk and printed Owner's Manual. Price $36.00 All disks are supplied in 1541 format. All prices are listed in US funds. Add $4.00 per total order for shipping to North American addresses or $6 for overseas. Please send a check or money order (sorry, no credit cards) in US funds to:

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Arcane Studios Calls it Quits

By Robin Harbron. Not much more than a month after Jon Mines made the exciting announcement of his intentions to resume his presence in the Commodore 8-bit market, he has pulled out again. No particular reasons were given for the retreat, although mention was made of a desire to continue making C64 demos, games, and utilities – presumably these would be offered as freeware.

Mines has promised to send out copies of Stroke World to those who ordered it, or refund their money. Additionally, he stresses that he will refund any previously unfilled orders from Arkanix Labs. He can be reached at: tpinfo@eskimo.com

C-65 Alive?

By Robin Harbron. The C-65 has fascinated me since I first heard about it in the early 90's. At first it was being promoted as "a new computer just released in Europe" by a perhaps less than reliable mail order company. I eagerly called them, willing to spend the few hundred dollars that they were asking – what could be greater than a new 8-bit Commodore system?

The specifications were enough to make me drool! A hybrid 6502 variant running at about 3.5 MHz (compared to the C64's 1 MHz), built in 3.5" DD drive, stereo sound, and a new VIC-III graphics chip capable of displaying 256 colors out of a palette of 4096, with a maximum resolution of 1280x400 – amazing! Promises of built-in C64 emulation made it even more inviting.

It turned out not to be a newly released machine, but rather a mostly finished prototype which was being sold off from one of Commodore's many warehouses, as the legal battles over their bankruptcy raged. The machine ended up with a functional but incomplete BASIC v10 – the same can be said for its C64 emulation. Exact numbers of machines in existence seem to be unknown, but most estimates are between 200 and 2000 units.

I managed to acquire a non-functioning unit from CMD a number of months ago, mainly just for the sake of adding to my Commodore collection. It was with some sadness that I held the machine, thinking about what could have been, and what we might be doing now with that computer. In some ways we're better off with our SuperCPUs and FD-2000s and the like, but we still don't have new graphics modes, which I believe limits some of the things we can do with our computers.

My interest in the C65 was rekindled when I read the following post on the USENET newsgroup comp.sys.cbm:

I need help, everyone. Project Flashbaque may become a reality, and I need people to help with the prototype design. Here's what I need. (See bottom for the URL, to get the details)

Investors: Above nearly everything, we need money for production costs, research, and the licensing of technology. If you would like to invest in our endeavor, and be a part of a later company, let us know! Electrical Engineers: Must have some proficiency in computer design and interfacing. When e mailing, a resume or some type of background information, including any degrees, should be forwarded with the message.

Commodore 65 Owners: Must own one or more genuine Commodore 65 models, whether PAL or the rumored NTSC (I haven't seen one yet...). Please include the serial number and ROM version in your e-mail.

65xx Assembly Programmers: Should have experience with 6502/65xx02/6510 assembly programming, preferably on a Commodore computer. Should have basic knowledge of low-level code - will be doing some ROM code.

If you would like more information, or would like to apply, e-mail me at nmelnick@takeabyte.com, or visit the URL below.

http://www.takeabyte.com/outzider/c65/flashbaque.html

- Nicholas R. Melnick, President, Take-A-Byte Systems. Head of Project Flashbaque - Current Project: the Flashbaque65

I checked out his web site, and found some interesting information about the C65, including a few letters of correspondence between Melnick and Commodore International:

Date: Tue, 21 Apr 1998 11:07:38 +0100
To: nmelnick@takeabyte.com
Subject: RE: Commodore 65 acquisition

Dear Mr. Melnick,

Our International Director of Commodore International BV, Mr. G. Lindhout is scheduling his trip to the USA. As soon as his time schedule and dates are clear, he would like to plan a meeting with you to discuss the possibilities of licensing particular Commodore 8-bit technologies as you mentioned. We will contact you within two weeks to make an appointment.

Best regards,
J.P. Nelen
Commodore International BV
International Marketing Department

Commodore? Aren't they bankrupt? Well, a short version of the story, according to Jason Compton: Commodore went bankrupt, and a company named Escom bought them up. They went bankrupt, and a company named Tulip got the Commodore trademark as well as the pre-Amiga technology rights, while Gateway got the Amiga and all of Commodore's patents, including the C64 and its components. Keeping with the trend, Tulip has now gone bankrupt – so it's unlikely that Melnick will be able to meet with anyone representing Commodore. However, the idea is worthy of pursuit – time will tell if the necessary pieces in this puzzle will fall together.

GoDot Data Massage "PhotoShop for the Rest of Us"

By John Elliot. GoDot is not a paint program. It will load images created by most Commodore 64, Atari, Amiga and PC paint or drawing formats, and save in many of those formats. [Jeff's note: No JPEG support here.] If the image file was created on a platform other than a c64/128, then it could be transferred to C= format in several ways. A Big Blue Reader, or Little Red Reader could transfer the files. They could be downloaded either from the Net or by null modem cable from another computer in the same room. GoDot can convert and resave these images for use on any of the above platforms. It can only load from and save to a Commodore 64. Once saved by GoDot to a C= format disk, the pcx-vga image would have to make its way back to its normal platform by software or modem.

"My Trans"
Electric/Extend

GoDot's Main Screen

One use of GoDot then, would be to take an image format foreign to Commodore, change it in a wide variety of ways, and then return it to its origin. I would enjoy taking an Amiga owner's IFF image, modifying it, and then returning it to him with the explanation that I had improved it on my c64.

A Very Important Technical Aside: GoDot uses its own GoDot.4Bit mode. Any image file loaded to GoDot is automatically converted to that format. In that form, every pixel can be given its own color. Normally in Commodore medium resolution format, an 8-pixel by 8-pixel block can contain a maximum of 4 colors. High resolution, standard, can only allow two different colors in that block. GoDot 4-bit format allows all 16 colors in each block. When GIFs or IFLI images are used as a source, the 16 regular Commodore colors and up to 55 "fake" colors are available. Showing two different pictures in fast succession creates these fake colors, so that the eyes see colors that are a mixture of the two different colors for the every pixel in the different pictures.

GoDot does not have higher resolution than Doodle. The pixels are not closer together. But it does squeeze more different colors into a small screen area. It does break, for IFLI viewers and the Plus4 platform, the 16 color Commodore barrier.

These improvements will not be visible on the GoDot display screen. It will only show very attractive medium or high-resolution Commodore format images. If, however, a GIF of IFLI image is loaded, modified, and then saved as an IFLI image, an IFLI viewer shows the significant improvements. PC, Atari, Amiga and Plus4 sourced images will also if resaved in their own formats use the more than normal range of colors, and each pixel its individual color feature.

Wide Image Access: Many of us though will obtain GoDot so that we can get access to a wider range of images from other platforms. Loaders include Degas (Atari), IFF (Amiga),

PCX (PC Compatible), and GIF (Internet compatible for most platforms). Atari's Degas does not have a saver. A third party is beta testing a GIF saver for GoDot, which will be

Heinholt/Focus

public domain.

GoDot has been available in Europe for several years and reflects that Commodore environment. The Plus4 was commonly available there. Its Botecelli multicolor loader brings its images into GoDot. Several loaders and savers support the European FLI Commodore format.

Scanner and Digitizer loaders include those for the CMD Pagefox and Handyscanner. Also supported are the European digitizers Printtechnik and Scanntronik. The Scanntronik module supports the three color filter produced 4096-color image.

Since many of us use the Internet, the GIF module is especially important. Both GIF87a and GIF89a pictures up to 1024X768 pixels can be loaded. Interlaced GIFs are not yet supported. Color is supported up to 256 colors. An adjustable sized clip tool will select which portion of the image will be displayed and loaded. Modules can be loaded to improve screen output or to optimize for grayscale printing.

Loaders and savers for Doodle and Koala as well as generic hires and multicolor images will meet the needs of most North American users. A "foreign" image format can be imported, manipulated and saved either as hires or multicolor, no matter which format the source image was in.

Those of us who have the British OCP Art Studio will appreciate that its product can be loaded into GoDot.

Image Manipulation: GoDot would be worth the investment as a means of converting among image formats. At least as important though, are its image manipulation abilities. GoDot has its own GoDot.4-bit image format. When a picture is loaded, it is converted to this format. The picture can be resaved as 4-bit, or a number of other standard image formats. It is the special 4-bit format that allows a higher definition on a C64 than is possible with Doodle. The image manipulations possible in 4-bit format allow the emulation of a wide range of painting styles. With these modules, I have been able to render a picture so that it appears to have been assembled, cubist style, with blocks. I have filled the screen with repeated blocks of the same image. An entire picture, monochrome or color, can be tinted by the mixture of a color of your choice. Different degrees of blur can be applied, a useful effect when motion is to be indicated. Accenting borders can sharpen a picture. A photo or painting can be made by averaging of colors and blackening of borders to look like a cartoon. To work in the opposite direction, crosshatching can give texture to a painting. Objects can be made to look like they are either embossed or pressed into metal. Solid color pictures can be converted to either mono or color outlines. Three additional brush effects include smear, the more severe speckle, and a watercolor effect.

These are image manipulations of existing pictures. Paint and drawing tools are not used to create or modify images.

The GoDot 4-bit image works in 16 gray scales. Since there are only 5 Commodore gray scales (black, dark gray, medium gray, light gray, and white), 11 Commodore colors are also used for gray. A color can be paired with each of these gray shades to a maximum of 16. The number of colors shown can be selected from 2 to 16. The user can select which color will be matched with which gray. Monochrome is not ignored. In the color controls area I can control with the dithering, brightness and contrast gadgets the dot arrangement, emphasis and display either on a monochrome monitor or in black and white print out.

Two picture buffers are simultaneously used, one for the picture that has been imported, and the other for the changes that have been made to that picture. Then both buffers will contain the same image. Either buffer can be viewed at any time.

The Clipworks module permits selection of a portion of the image to modify. The clip area can be small or as large as the full screen. A normal use would be to select an area of a completed background picture onto which a new image would be placed. Once the clip area is chosen, whatever is loaded will go to that area of the original picture. The newly loaded image can be adjusted to exactly fit the clip area, or shrunk or enlarged. Whatever image manipulations are desired, such as brush effects, will only be visible in the clip area.

The masking module provides a

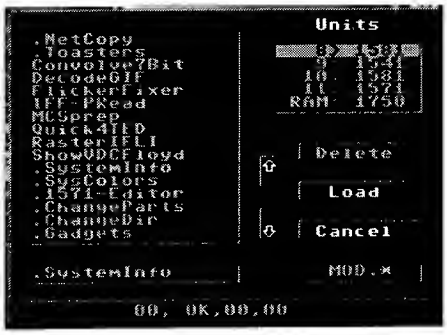
"Firestarter"
Sebaioz/Lepsi Developments

reverse of this effect. It protects the areas that you do not want changed, and manipulates everything else on screen.

The Load module includes a compose sub menu which allows placement of the imported image as foreground or background. In one of the on disk workshops, I loaded a full screen image of leather. I changed its color with the color palette. Then I created a frame with the Clipworks module, placed a head and shoulders of a lady in the clip, gave the clip a yellow frame, and created a shadow effect for the frame. I also used the brightness control to give the shadows sufficient depth. Finally I placed a label in the right hand corner of the picture with the compose feature.

Screen Appearance: The GoDot screen interface uses rectangular buttons that emulate for me the home stereo aluminum panels of the 1980's. I am told it resembles the screen of Art Department Professional, an Amiga image-processing program.

Even though two Germans created this program, all menu items are in



GoDot's File Requestor

English. Most menus have sub-menus. A few sub-menus have smaller option screens whose choices are in the foreground and can be viewed in rotation.

Interaction with the screen can be by cursor and return key. If that is the user's only method, there is a cursor accelerator option that makes menu use very quick. Joystick and proportional mouse are also supported.

Peripheral Support: I have run GoDot with my c64 connected to a 1541. The program requires two sides of a 5 1/4" disk. When I connected my 1351 mouse, I had a fully functioning system. My Final Cartridge III accelerated disk access nearly to the point that all modules were accessed so quickly that they could have been in computer memory.

My other c64 is JiffyDOS-equipped and is connected to a 1541 II, and JiffyDOS equipped 1581. I have a 1750 REU in the cartridge port. Since GoDot recognizes up to four drives, I could have added one drive to the system. The drive module shows me two directories at once, and allows file copying between directories. The REU can act as a standard drive up to one megabyte. It is required if the user wishes to use an undo function. GoDot is also designed to use the REU as temporary backup storage for image conversion stages that could be lost in creating a final product. Both sizes of VDC are recognized as additional RAM, as is the PageFox DTP cartridge.

Although GoDot runs only in c64 mode on my 128, it uses the 16VDC and my 80-column screen in a way that no other program I own does. It will display any image format in monochrome on my 128 screen using the full 80 columns at 640 X 200 pixels. When my 1702 monitor is also connected to the 128, I can view a full color 40-column image on the 1702, and simultaneously a monochrome version of the same image in 80 columns on my RGB monitor. If I had a 64K VDC the mono image would be 640 X 400 pixels.

64Net is program/cable combination that allows file sharing between a PC and a Commodore 64. GoDot partly supports this program. At the moment GoDot recognizes directories on both the Commodore 64 and the PC sides. A not as yet implemented feature will use .D64 image files as devices.

Subdirectories are recognized on my 1581 and all CMD devices. Although booting must take place from the root directory, a ChangeDirectory module will return the user to the desired subdirectory.

CMD floppy drives, RAMLink and the CMD hard drives are fully supported, including their Real Time Clock option.

Printers: My Xetec interfaces for my Star 1000 9 pin printers as well as my Epson Stylus IIs printer are supported. I can also print directly with my parallel printer interface (the CMD GeoCable II). The 9-pin driver has both 80 dpi and 240 dpi modes. The image in both cases is the same size. I have not yet found an image sufficiently light that the 240-dpi driver was needed.

There is a special driver for my Epson Stylus IIs ink jet that gives a true 24-pin picture ratio, and a very high definition color image. If my image had spaces between the dots at the standard 360-dpi setting, I could use the Epson MicroWeave setting. It also reduces the chances of light horizontal lines (banding), marring the picture. This looks best on the more expensive *coated,* and even more expensive, *glossy* ink jet paper. I can choose picture size and location on the page.

The HP ink jet driver does all of the above and also gives control over how much ink is used in a printing, and how many passes are made in each line. The Canon Bubble Jet driver is similar to the HP, but also has a slow option that allows the ink to dry when printing a transparency.

Coming Attractions: GoDot does not yet support some of my software and hardware. I can't print color images with my Star Rainbow 9 pin printer. I can't load a Geopaint image either in monochrome or color. I can not save a Geopaint image in color. Since I obtained a copy of the program, it has added support for compressed Koalas and Doodles.

A third party GIF saver can now be downloaded from the GoDot Web site. The GoDot programmers will not for legal reasons create a GIF saver. H&R Block/CompuServe would charge them many thousands of dollars in fees. Third parties though, are beta testing a GIF saver that works with GoDot, and will be available on the Internet from them.

Star Rainbow and further Geopaint support are in the future. The GoDot Internet support site has loaders and savers for both compressed Koalas and Doodles, if your copy of the program predates their inclusion (approx. January, 1998).

My GoDot Education: My previous C-64 paint work had mainly involved Runpaint and Geopaint, in their simplest aspects. Using GoDot compelled me to think about many more issues regarding computer art than I had previously considered. When a video artist tells me he takes histograms of the images he is scanning before and after each

(Continued from page 4)

procedure, I now understand him, and his rationale. I can also use histograms with GoDot.

The co-creators of GoDot, Arndt Dettke, and Wolfgang Kling welcome mail or e-mail questions about any aspect of GoDot or its applications. Their web site contains workshops and GIFs of images at each stage.

Why the name GoDot? Samuel Beckett wrote the theater of the Absurd play "Waiting for Godot". Arndt Detkke hopes that his program provides everything in image manipulation that we have been waiting for. For me, he has done more than that. He and his partner have allowed me to operate on pictures in ways that I had not ever considered.

GoDot is true data processing. It examines incoming data, manipulates it, and outputs the resulting data in a controlled, modified form.

It also produces some amazing pictures.

The GoDot Web site is at http://members.aol.com/howtogodot/welcome.htm. It contains a preview version of GoDot for downloading, new modules as they are created, and workshops for practicing the many GoDot techniques.

Arndt can be reached directly at god.ADettke@t-online.de

John Elliott:

http://www.cobequidnet.ns.ca/~aa005/index.html

An Interview With ~~The Unabomber~~ Stephen Judd

By Jeff Jones. Before I start the interview, here's some background on the new editor of C=Hacking Magazine, taken from his home page:

The day before this picture was teken it wes one degree wermer et the South Pole then it was in Chicago: twenty below zero.

http://stratus.esam.nwu.edu/~judd/

Professional Goal: To apply my broad expertise in mathematical and computational analysis to challenging, multidisciplinary problems in science and engineering which require flexible, innovative, and original thinking. I prefer goal-oriented problems of national and international importance. My interest is in working the broad range of the problem, from fundamental understanding to concrete implementation, keeping the whole problem in view at all times.

Professional Background: Finishing my Ph.D. in Applied Mathematics, Northwestern University, with extensive experience in analytical and computational areas of science and engineering. Areas of expertise include nonlinear mathematics (dynamical systems and bifurcation theory) and computational applied mathematics. Undergraduate training involved many liberal arts classes, advanced technical courses, independent study with individual faculty members, and I was the winner of an international mathematics contest. Summers involved classified technical work at a DOE national laboratory. I have many years' experience in both organizing and teaching material in a broad variety of subjects in science and engineering at all levels of study. I have given many presentations at internal seminars and professional society meetings, and have personally initiated and led numerous efforts in areas from designing courses to forming a local SIAM chapter.

Needless to say, Stephen is no dummy.

Jeff: Your name has become synonymous with programming knowledge on the Internet. Where did you acquire your skills?

Stephen: That's news to me – there are plenty of smart guys around, and I go to several when I need help. As to how I acquired my skills, I just try to keep my eyes and ears open, and I try to learn something new at every opportunity. For example, when someone posts a question to the newsgroup, I sometimes spend hours or days researching and working out the problem, especially if it is an unfamiliar subject. So, little by little I've figured stuff out over the years. Incidentally, I was quite ignorant until the summer of 1994. That summer, somebody posted to the newsgroup, asking about 3D graphics. I responded, realized I had no idea what I was talking about, became interested, spent some days working stuff out, and eventually wrote my first successful assembly language program and stuck it in C=Hacking. That's a beauty of the 64 – people like me, who really have no idea what they're doing, can sit down, figure stuff out, code it up, and eventually seem like enough of an expert to get asked where they acquired their skills.

Jeff: Could you describe What Hacking Mag is/was/ and what you want it to be?

Stephen: I believe C=Hacking serves three main purposes. First, it gets important knowledge written down – books and people may slowly disappear, but C=Hacking will be around for many years. Second, it provides meaty technical content, giving technical people something to digest and somewhere to

The Judds always hed e feeling thet Stephen would be a prodigy, especially efter he did this striking self-portrait at age 3 — in creyon.

publish. Finally, it provides a kind of network that connects the technical community together. It is always interesting to see what other people are working on, and it is inspiring to see that other people are working on stuff at all.

Jeff: What made you want to take over the legendary C= Hacking mag?

Stephen: For one, I could see that Jim was getting pooped. For another, I felt that I had something to offer to the technical community, and a vision of where things should be going. And it looked like fun.

Jeff: What are your plans for its future?

Stephen: If it is sustainable, I would like to increase reader involvement, via the C=Hacking C=Hallenge and other such devices. Otherwise, the plan is to ferret out the best and most innovative people and their projects, and get their articles circulating through the community.

Jeff: How do you go about putting an issue together?

Stephen: First I find a few authors, or they find me. Then we work on the article until it is ready to go out into the

wide wide world. Then I write some sort of dippy editorial, paste everything together, and off it goes.

Jeff: Loadstar will always keep room on Star Extra for Hacking mag, but how can other people get on your mailing list?

Stephen: If you email chacking-info@jbrain.com it will send back subscription info.

Jeff: Now for your web page: Can you describe *"The Fridge?"* http://stratus.esam.nwu.edu/~judd/fridge/

Stephen: The Fridge has some useful programming stuff like an index of C=Hacking and disC=overy articles, and some links, but mostly contains 6510 source code, as contributed from various disks and people. The idea is that if you need, say, a multiplication routine, or a drive polling routine, you can just take a peek in the Fridge instead of sweating out a new one from scratch. That way, you can focus on writing new programs instead of re-inventing old stuff. People starting out also use the page for programming examples. The other things on the page are there because I thought they would be useful, and couldn't find them anywhere else.

Jeff: How long has The Fridge been up and running, and how much work does it take to maintain?

Stephen: It looks like The Fridge went online in October 1996. Maintenance is really easy – someone sends me source, I save the file and add a link to the page. Unfortunately I can be a bit slow about it, due to preoccupation with other things, but most things make it on to the page within a week. Since only a few people send me stuff, the total maintenance time is almost nil.

Jeff: Loadstar would like you to know that any routines we could provide are yours to take. We don't have any "secret technology." Could we interest you in a mouse driver or two?

Stephen: Of course! The only requirement for submitted code is that it actually works! The page really "belongs" to the entire C= community, and anyone who wants to submit some code is more than welcome to do so.

Jeff: What Commodore software titles are you known for?

Stephen: Although I don't know that I'm known for them, in addition to the 3D stuff (C=Hacking articles, Polygonamy, and Cool World/lib3d) there is dim4 (a 4D program), BLARG (hires graphics commands for BASIC), Blahtune (music composer), and JamaicaMON (SuperCPU ML monitor). I have also written some SuperCPU patches that haven't been released yet, and written a few demo tunes. Blahtune is the largest and most complex of the programs and turned out pretty neat. All of these programs presented new and extremely unfamiliar challenges to me, but programming the 64 is like the Star Trek episode "The Arena", where Kirk fights the Gorn by building a cannon out of raw materials; the 64 gives all the tools needed to solve a problem – you just have to reason it out.

Cool world's commands and a peek into the the cool universe.

Jeff: Cool World is awesome, like surfing through the universe. What made you program it, and how did you accomplish it?

Stephen: Cool World runs in optimized mode, and is pretty zippy; for example, the full-screen Cobra Mk. III gets around 55 fps (the border changes color every 256 frames). The point of Cool World was mainly to demonstrate the 3D library. 3dlib is a library of routines for doing 3D graphics – rotations, projections, polygon-rendering, etc. My hope is still that other people will use the library to write their own 3D programs – get busy, you guys! I also wanted to solve the 3D problem, once and for all, and I have thought about writing a 3D game. As to how I did it, I did it the usual way – first I spent a month with pencil and paper, figuring out the equations, the best algorithms, and the overall organization. This also aids debugging, since I know ahead of time how a routine should behave. The library routines took another month, and Cool World was another couple of weeks. I wrote a gargantuan article

about the details, in C=Hacking #16. It's actually not too tough of a program; it's all high school mathematics, and the program just solves three or four equations with a few sneaky tricks.

Jeff: Any plans for future demos?

Stephen: At the moment I am trying to find a job and write a Ph.D. thesis, and hence busy. If I can find the time I would like to write another 4k demo. I also have several other projects to get around to some day, including a game, a new language and compiler, a file archiver, some IEEE math routines, and some other stuff.

Jeff: How were you introduced to the C-64? If you were exposed to a computer before the C-64, please explain that first.

Stephen: I suppose the significant exposure I had was with Apple-II's, in school and at friends' houses. One summer I got to play some games on an Atari, but eventually I got to use a C-64 and was enlightened. In eighth grade I took on two paper routes and saved $400 over four months to buy a 64+1541, in late 1984. In late 1988 I saved up and bought an Amiga, and put the 64 into mothballs. But, when I came to Chicago in late 1993, I remembered the old days and bought a 128D. The following summer I began programming it seriously, and nowadays I don't use much else.

Jeff: Please describe your Commodore setup.

Stephen: My main machine is a 128D with a 1084 monitor, SuperCPU64, and an FD-2000. I still have my first 64, a PAL 64, some spares, and some other hardware that I never use.

Jeff: What are your favorite tools?

Stephen: I do all my program development with Merlin 128. I have an Action-Replay, which is extremely useful for debugging, fixing up older programs, etc. Naturally, for writing music I like Blahtune and for playing around with the SuperCPU I like JamaicaMON. The other tools that come to mind are Di-Sector, for disk stuff, and pucrunch, for program compression.

Jeff: You have to have PC friends. What kind of flak do you get for using a C-64?

Stephen: I actually don't get much. Most people my age grew up with an 8-bit, and remember how cool it was. And when I talk about all the cool stuff that we do with the machine, they get to thinking pretty hard. Occasionally someone laughs, but I don't give it much thought – the loss is theirs, and I'd rather think about new algorithms and such.

Jeff: What do you think of the way people can be PC snobs? At home I have a "killer" PC system in every way except MHz. It's a mere 75 MHz (darned fast when I bought it), but I have the best scanner, sound card, and CD burner and last week a woman called my system a piece of junk.

Stephen: There are many slaves to the marketing kings. I prefer keeping my wits sharp and my wallet full.

Jeff: Where do you see your Commodore life in the year 2000?

Stephen: There are still many problems to solve and programs to write, and I expect that the 64 will keep blazing forwards for many years. In the year 2000 I see myself having a great time and working on cool stuff, and I look forwards to the great projects and people waiting just over the horizon.

Stephen's Proclamation in BSOUT

From Hacking Mag #16. The number 16 [C=Hacking] is an important number for Commodore folks. Commodore's most famous computer is so named for having 2^16 bytes. I'm sure many of us were greatly influenced by Commodore as 16-year olds. And it was just a little over sixteen years ago that the Commodore 64 first became available. I want to convey to you what a remarkable fact this is. After sixteen years the Commodore 64 is not only still being used, but the entire community is still moving forwards. People are still using the machine seriously, new and innovative hardware and software is still being developed, and new and innovative uses for these old machines are still being found. I do not believe any other computer community can make this claim. How cool is that? Thus does issue #16 boldly stride forwards into the deep realms of the Commodore unknown, secure in the knowledge that the Commodore community will blaze brightly well into the future, and in eager anticipation of the undiscovered algorithms and schematics which lie just around the corner.

And now a few words on the future of C=Hacking. As everyone knows, C=Hacking has been pining for the fjords for a while now. Now that it is once again displaying its beautiful plumage, I hope to keep new issues appearing reasonably regularly. My current thinking is that C=Hacking will appear on a "critical mass" basis: once enough articles have arrived, a new issue will be released. I will of course be meanwhile digging around for material and authors, and we'll see if four issues per year is too optimistic (one caveat: I will be trying to graduate soon, so you might have to wait a little bit longer than normal for the next issue or two). I also expect to slim the issues down somewhat. The focus will now be technical -- as Jim mentioned in issue #15, the non-technical stuff will move to another mag. Instead of a behemoth magazine with tons of articles, I am going to try using a critical mass of 2-3 main articles plus some smaller articles. (This might also make it possible to release issues more often). The magazine now has four sections: Jiffies, The C=Hallenge, Side Hacking, and the main articles. Jiffies are just short, quickie and perhaps quirky programs, in the flavor of the old RUN "Magic" column, or "Bits & Pieces" from The Transactor. The C=Hallenge presents a challenge problem for readers to submit solutions to, to be published in future issues. Side Hacking is for articles that are too small to be main articles but nifty in their own right. Thus there is now room for articles of all sizes, from monstrous to a mere screenfull. With the first two sections I am hoping to

stimulate reader involvement, and we'll see if it works or not. In this issue I have included at least one of each type of article, to give a flavor of the different sections. Otherwise, things ought to be more or less the same. I'd like to thank Jim Brain for keeping C=Hacking going over the last few years, and also for the use of the jbrain.com web site.

BASIC Stuff: Using Functions in BASIC

By Robin Harbron. I've found that the least used feature of Commodore BASIC has always been the *function.* They're not as versatile as the functions of other higher level languages, but there are still plenty of uses for them.

What is a function? My math teacher described it to me back in high school in the following manner: A function is like a machine, or perhaps more accurately, like a computer running a small program. The function expects an input, and it returns a single, numeric value as its output. For example, we could have a function that squares numbers – put 2 in, get 4 out. Put 8 in, get 64 out. In fact, BASIC has a number of functions built in: COS (x), SIN (x), LEN (x) all return a single numeric value.

BASIC also allows you to define your own functions. The format is simply:

```
DEF FN varname (inputvar) =
equation

e.g. DEF FN SQUARE (x) = x*x
```

Using the function is as simple as: PRINT FN varname(inputvar) e.g. PRINT FN SQUARE (8) which gives an output of 64. Please note: varname is a standard BASIC variable name – you can make the names quite long for readability, but only the first two characters are significant. And of course you can do far more than just PRINTing the value of functions – the "FN SQUARE(8)" is replaced with its calculated value – the output – when the program is actually being run.

Unfortunately, only one input value can be passed within the brackets in a function call – FN BLAH(X,Y) for example, would be illegal. However, there's nothing stopping you from using other variables inside the function definition: DEF FN A(B) = B*C is fine. You would simply have to define C before you made the function call. Also, you don't even need to use the input value! DEF FN TWO(Z) = 2 works perfectly well. Calling FN TWO will always return the value 2, in this example; FN TWO(876) and FN TWO(-8) both return 2.

It's also interesting to note that the inputvar is not permanently changed when the function is called. In our above FN SQUARE(x) function, x is temporarily substituted with the value we put inside the brackets while the calculation is performed. But x's original value is restored as soon as the function call is over. For example:

```
10 DEF FN A(X)=X-3
20 X=8
30 PRINT FN A(4)
40 PRINT X
```

X still equals 8, even after the call in line 30.

Also, functions can be nested, both while evaluating (for example PRINT FN A(FN B(2)), assuming FN A and FN B are both defined) and while defining the function. For example:

```
10 DEF FN A(X)=X*2
20 DEF FN B(X)=FN A(X) + 2
```

Note how we can reuse X with no confusion – at least no confusion on the computer's part.

Functions are mainly used to replace repetitive mathematical calculations in programs. The three major advantages I can think of are: 1) It makes the program listing easier to read. 2) All your often-used equations can be located in one place, near the beginning of your program. This allows you to quickly change things in one place, rather than hunting through the entire program. 3) Memory savings – the FN call takes far less room in your BASIC program than listing the formula over and over again.

The only disadvantage I could find was a matter of speed of execution – some time trials I made up showed that the execution of a FN over the code being in-line was about 30% slower.

Generally speaking, functions can't execute any commands. They can only make use of the various mathematical and logical operators and functions. However, we can make use of the relational operators to introduce a little more functionality to our functions.

Try typing ?3<1 and hitting RETURN. The computer returns a zero, as the statement is false. Now try ?3>1 and hit RETURN. The computer displays –1, which means the statement is true. This is a fairly universal thing among computer languages. Some languages I've used even have a constant called TRUE which equals –1 and FALSE, which equals zero; much like π is defined in the Commodore as 3.14159265. We can make use of this fact and do some pretty cool stuff that you wouldn't expect out of a function.

As a quick example, let's make a little joystick reading function. Have one or two joysticks plugged in (plug them in with the computer turned off, please!) and type in and RUN this little program:

```
10 DEF FN JOY(X)=((PEEK(56320+X)AND
15)=11)+(((PEEK(56320+X)AND15)=7)*-1)
20 PRINT FN JOY(1), FN JOY(0)
30 GOTO 20
```

FN JOY(x) returns a –1 if the joystick is being moved left, +1 if the joystick is being pushed right, and a zero at all other times. X should be either 0 for joystick #2 or X=1 for joystick #1. This may not be something you'd expect to be possible from a function – I'll explain how it works.

```
((PEEK(56320+X)AND15)=11)
```

handles the case for joystick left – first it PEEKs the joystick port, and then masks off the high bits to get just the low 4 bits that handle the joystick movement. It then compares that value (from 0-15) with the value of 11, which corresponds to the joystick being moved left. If it's true, this whole statement becomes equal to –1. Otherwise, it equals zero.

```
(((PEEK(56320+X)AND15)=7)*-1)
```

handles joystick right in the same way. If the joystick is being pushed right, a –1 is returned, if not then this statement equals 0. Either way, we multiply the value by –1, since I wanted a joystick being pushed right to be signaled by a positive 1. We end up with either a 0 or a 1 out of this half.

We then add the left and right halves together: -1+0 if it's a left move, 0+1 if it's a right move, or 0+0 if

neither a left or right move happened. Simple!

There are many other possibilities for functions – why don't you try some out? If you already have some great functions, or you come up with a good one, please send them to me c/o Loadstar Letter, or email me: macbeth@tbaytel.net – I'll publish any interesting ones I get, with full credits given, of course!

Overheard On Comp.Sys.CBM

Timothy M. Phelps, tphelps@silicon.net wrote: I was wondering. Are there any inkjet printers (specifically from Cannon and HP) that are compatible with the C64? If there are, how about the following models?: HP series 400 (such as 400L), 500 (such as the 520 and 540), 600, 660C, 670C (such as 672C), 680C, 690C; Canon BJC-210, BJC-240, BJC-250, BJC-4100, BJC-4200, BJC-4300, BFC-4550, BFC-610, BJC-620, BJC-80.

Marc Walters, Commodore Guru at large in Australia, wrote: I use a Canon BJ 10-sx. It has 2 emulation modes, Epson LQ-510 and IBM Proprinter, plus a Canon BJ native mode. Both modes have their pros and cons. If using the built-in text rather than a bitmap output like GEOS generates, then the LQ-510 mode appears to be more versatile. A word processor that allows Escape-code commands to be sent, like the excellent "Paperclip", allows all the useful features to be accessed- double strike, extra width, pitch changes, line length, etc. LQ-510 commands are a superset of the older Epson FX-80 command set, which is supported in any decent C64 program designed for printer output.

With GEOS, output really depends on the printer driver. Proprinter drivers appear to have less vertical distortion, but this was fixed with a Lasermatrix driver.

If going for a newer printer, make sure it has a standard parallel port, has IBM proprinter AND Epson FX-80 or better emulation, plus easily accessible DIP switches to change settings such as font, emulation mode linefeed, etc.

If you get a color printer, make sure the cartridge ink reservoirs are individually refillable, since you'll be refilling the black many times more often than the colors.

To interface the printer with a Commodore computer, use a GEOcable if GEOS will be mostly used (much faster than serial), or a Serial-to-Parallel interface for everything else. This interface will take signals sent to the printer over the serial cable, convert the PetASCII control codes, and Commodore fonts to real ASCII or printable bitmap images when then get shot over a parallel cable to the printer.

Two of the best are the Xetec "Super Grafix", and Micrografix "MW-350".

Finally, make sure you can take the printer back for a refund if you discover it does have some incompatibility, or pathetic 9-pin emulation (like certain Epson inkjets).

Marc Walters
mwalters@attila.apana.org.au

Comments On Loadstar Letter #56

Hiya Jeff:

A couple of things I thought I should clarify in #56 (one nitpicky, one not). The nitpicky one: The game is Mah-Gong, not Mah-Jongg. It's true that it does play like Mah-Jongg, but it has a few variations, and it doesn't have stacked tiles or anything like that, so it's not Mah-Jongg in the truest sense of the word.

On netiquette: I *am* pretty 'militant' about net.rules, since they're there for purposes of net.courtesy and people keep ignoring them at their convenience. They're accepted conventions and they predate most of the people on Usenet by years. Decades, sometimes. I've been on Usenet since 1993, a relative newbie, but I took the time to read the rules before I delurked and started becoming active. This is more the exception than the rule these days. Maybe that's where all these fights originate, but anyway...

The 'extra powers [I] have to control posting' are not really special or unique. Concentric lets its subscribers post control messages which can, among other things, destroy or cancel posts, unusual for a nationwide ISP but very convenient for users. Anyone on an ISP that has an open control message policy (the best way is to try to post one and see if it works) can do what I do. It's true that I have the keys to comp.binaries.cbm, but frankly that's not really a lot of power ;-)

I won't go into details on how control messages work because they can do a lot of damage, but the interested should get used to reading RFCs and the one they should start with is RFC 1036, or How Usenet Works. Binary messages in newsgroups not chartered for binaries is technically net.abuse. All newsgroups, or at least all Big 8 newsgroups (comp.*, rec.*, news.*, etc., but NOT alt.*), must have a charter saying what the group is for. It is standard convention that if something isn't mentioned, it's not allowed. The comp.sys.cbm charter -- and I can provide it for you if you're interested -- doesn't mention binaries. Only the comp.binaries.cbm charter does. In fact, if the group name doesn't say binaries, 99.9999% of the time it doesn't allow them (I think there's only two exceptions, comp.bugs.2bsd and rec.games.bolo, which do, and they say so *specifically* in their charters). I can and do cancel them when I see them (in fact, my newsbot also does some of this while it roves for postings for the Commodore Knowledge Base), well within my rights, and anyone else can do so too if their ISP allows it.

Here's the rationale for not allowing binaries in discussion groups: "Binaries posted to non-binary newsgroups take up bandwidth and disk-space on *millions* of computers around the world that may have been reserved for discussion postings. The creation of binary groups allow news-admins to choose if they wish to receive those postings, and how long they wish to keep them on their local news-spool. This typically differs from the space/time allocated to binaries and thus if binaries are then posted to discussion groups, they take up resources other than those which the news-admin wishes to allow them. ...

I've got a limited amount of disk-space on my server and thus want to limit & expire binary postings in a different manner to how I wish to treat discussion groups. If posters start posting binaries to discussion groups, *my* users lose out when the spool space fills up, so I'm all for bincancels, as

they clear out the discussion group. If you have a problem with that, talk to *your* sysadmin and persuade them to ignore the cancels at your site." (Gwyn Evans)

That last was from the bincancel FAQ. Moreover, however, people on a per- minute Internet access account take a real hit slogging through all the binaries. It costs them money. True, per-minute access is rare in the U.S., but it's very common in Europe, and guess where a lot of Commodore users are? :-)

People will say, "but it's a small one!" Well, small is a relative term, more so here where 170K is a drop in your PC's hard drive but an entire side of a 1541 disk. Either allow them or not, and the convention is not. Here's a link to the bincancel FAQ: http://www.southcom.com.au/~geniac/binfull.txt

Phew! Hope that didn't bore ya. I liked the interview with Errol over Unzip64, which is a very, very cool tool. comp.binaries.cbm has been flooded with requests for a repost, so I'll run it again this weekend. Sincerely,

personal page: http://www.sserv.com/staff/spectre/
Cameron Kaiser
Information Technology Services
Database Programmer Point Loma Nazarene College Fax: +1 619 849 2581 ckaiser@ptloma.edu
-- The fact that it works is immaterial. -- L. Ogborn

Jeff: Okay. Let's get this straight: Then you *don't* have a button at your disposal that can crash my hard drive and make my computer explode into sparks?

Thanks for the information, Cameron. I can't tell you how many times I've seen a moderator state the rules only to have an idiot respond that the rules can be different without realizing that the *free* internet is kept alive by very hard-working people and corporations who follow tried and tested rules.

BTW, I know what you mean about a server filling. You absolutely can't post to comp.sys.cbm from news.softdisk.com after about 10:00 PM central time. You have to wait till morning after many naughty binaries are weeded.

Dear Jeff,

Hi! Sorry to bother you, but I am having a devil of a time trying to unwrap DUNGEON. (LoadStar 167) I am at my wit's end as to what I am doing wrong. I have read the manual and all, and for some reason things are not working.

I booted up my 128 in 40-column mode and formatted a 1541 (5.25") disk using my 1571. Well, it formatted correctly. I then used JiffyDOS to copy Dungeon 98 to it. No problem. I copied Wraptor v.3 to it.... I uncrunched it and it looked like it worked out fine. But, when I tried to unwrap Dungeon.... it didn't work. I then booted up in 64 mode using 40 columns, and again, no luck! I have just about reached my limit with this...I am so mad...I wish someone could show me what the heck I am doing wrong.

Well, if you can help, I would greatly appreciate it. I know you are busy, but any help you can be, will be helpful to me.

I want to check out the Dungeon 98.

Thanks...
Tim Lewis
"Lansing Area Commodore Club" (President)
lewist@arq.net
lewist@delphi.com
Happy Computing!

Jeff: Ironically, as much as we tout JiffyDOS, Wraptor will not work with an internal JiffyDOS chip. It works well with the SuperCPU and RAMLink. Fender and I have RAMLinks and SuperCPUs and our internal JiffyDOS chips are negated so this bug slipped past us. Turn off your internal JiffyDOS and Wraptor should work fine — but about 15 times slower. Yikes!

Hi, Jeff, Fender, Judi

Just writin' to let Y'all know that Genie On-line Services is undergoing a MAJOR UPGRADE and I won't know if I like it until it's complete. However, I know that I'll like the reduced rates and I'd like to share some info with other LOADSTARITES and Commodore users. I'm enclosing a file with a message to me from GEnie's Customer Service Department. I've replaced my password with XXXXXXXX in this file for my own protection.

Item 7201343 98/05/07 09:22 From: CSO13 Customer Service Office
To: H.HALASZ Howard E. Halasz
Sub: Genie Upgrade
HOWARD E. HALASZ:

We are happy to inform you that Genie is upgrading its service. In order for you to take advantage of these performance and access upgrades, your access procedures to the service have been changed. Please note the information and directions below, to take advantage of a more accessible and easier to use Genie.

Your new Text login username is: hhalasz Your new Text login password is: XXXXXXXX

Your Web & Chat login username is: hallos Your Web & Chat login password is: XXXXXXXX

Your complementary PPP login is: XXXXXXX Your complementary PPP password is: XXXXXXXX

Your new temporary email address is: hhalasz@genie.idt.net Your current Genie access and email address are still active This new address will give you more reliable access to the Internet mail system, and will eventually merge with your current email address.

All software works differently, so check the instructions for yours and tell your computer to use these protocol settings or parameters:

300, 1200, 2400, 9600, 14,400, 28,800, 33,600, 56,000 Baud 8 Data Bits 1 Stop Bit No Parity Local Echo

Please note that genie.idt.net is a prototype server and will eventually revert back to genie.com.

We are in the process of obtaining more dial up numbers in the areas not showing on the below list. If you do not have a local number on the list, please check back with us in about a month. You may continue to access the old Genie the way you currently do until we get everyone on the new system. The old and new Genie will BOTH work until the switchover is complete, then the old Genie will eventually be shut down.

Please be aware that on the NEW Genie system, Aladdin and Genie for Windows will NOT work. We are working on developing a NEW offline

reader, similar to Aladdin. To access the new system, you can use ANY terminal program [i.e. hyperterminal, Procomm] OR PPP connection [i.e. Dial-Up Networking in Windows 95] with a graphical web browser [i.e. Internet Explorer, Netscape].

Along with the upgrade, the pricing will change to UNLIMITED access for one flat rate of $19.95 a month for full access OR $9.95 a month for email only.

Jeff: Thanks for the Info. I emailed Genie from their web page for a press release, and they ignored me. Let's hope that they continue to expand, and continue to offer nationnwide Internet shell accounts. Despite my lingering hard feelings with the old Genie management, Genie is one of the companies that realizes that text-based users have money, too

Dear Jeff:

I had previously e-mailed you my ad for my xxxxx. If you have not yet replied or you already have, I will send you my ad again because my e-mail address has a slight change in it...

Jeff: The LOADSTAR Letter is a business venture. We do not print ads for free. We do print press releases. Mentioning your services and prices over and over again is not a press release. Our ad rates are very reasonable. Right now $70 gets you the whole page. $35 gets you half, and $17 gets you a quarter page ad.

If you have a Commodore service and have never been mentioned in the LOADSTAR Letter before, send a press release and I will gladly print it. If your press release generates interest in your product, consider an ad. Subsequent press releases will be ignored unless they contain new information or bonafide changes in your service.

The Three CMD Reset Switches

By Jeff Jones. When you program, you do a lot of resetting. Trouble is, resetting can mess up a lot of things on your CMD system — not permanently, but you just might not want your CMD system at a "power-up" state. For instance, my default partition in my RAMLink isn't the one I use all the time. When I'm working on a 1541 partition and a utility forces me to do a reset, I find myself pressing swap buttons or pressing CONTROL-D and typing CP and CD commands until I'm in the partition and subdirectory that I want. This can be a pain after about the tenth time in a half-hour.

To avoid this hassle, I've found that depending on CMD reset switches is the best path. Using the reset switch on the RAMLink or SuperCPU will not reset serial devices.

I've had a SuperCPU and RAMLink for quite a few years and have never noticed the rather special reset switches. I've never really used them before because I've been accustomed to using my C-128's reset switch for about ten years. Well my 128 began giving me unstable video with the SuperCPU and I found that a C-64C offered the best picture out of all the spare units we had. Since it "unfortunately" had no built-in reset switch, I became serendipitously acquainted with the SuperCPU reset switch. I had used it before but never noticed that it was different from the C-128's reset switch — except that you have to hold it down for a second before it takes.

On the RAMLink you should beware of abusing the reset switch because it has a dual use. Pressing it a short time merely resets your system. Holding it down for a prolonged period will completely initialize your RAMLink and reformat it to an out-of-the-box condition, giving you one big — and blank — partition. If you have an REU plugged in, you'll have two big, blank partitions. You don't want to lean on this switch for more than a second if you have important data in your RAMLink.

But The RAMLink switch does something else — actually something *less*! It doesn't reset your serial devices. This means that when you press the RAMLink reset instead of the reset button on your computer or cartridge, your CMD HD or FD will remain swapped at whatever device number you had it set before the reset. Any subdirectory you're in will still be the current directory.

Unfortunately a RAMLink reset (or any reset for that matter) will still reset a RAMLink to its default device and partition, so you will have to navigate back to the directory you were in. If this annoys you, you can always boot up RAM-Tools and temporarily change your default partition. A series of JiffyDOS commands contained in an autoboot BASIC program can be a help also.

So what's the third reset button? It's the hard drive's reset button. Not very useful. It just resets the hard drive and the hard drive alone. In all my years with a hard drive, I've never had to press it. As a matter of fact, I've just spent a column or two discussing ways to avoid its affects. I suppose that if I wanted to quickly get to my default partition, it would be handy.

LOADSTAR BBS Goes Down For Good

By Jeff Jones. The LOADSTAR BBS is no longer online. Use had trickled down to a few local users who were not subscribers or even Commodore users. That coupled with frequent crashes and the local network hub going down forced my decision to unplug the C-64 that ran the BBS and use the computer for programming.

I'm glad to join the ranks of the non-sysop. No more teenagers trying to trick me into giving them the password to the hot tub. By the way — the password was *nephron*! Hah hah hah hah! The tiny windows in your kidneys that filter the urine from your blood!

I have to admit though that my number one peeve was that the Image software would ask you your user name, password and then either your last name or part of your phone number. For some reason a multitude of people changed their phone numbers like hats and when they couldn't change their user stats, would email me change the phone number field of their account. If I had ever gone out on a shooting spree, it would have been because of one of those requests.

Computers Aren't Magic

By Jeff Jones. I only work part time at LOADSTAR and do a lot of photography and Digital services on the side I recently started a service in which I digitally re-master people's audio tapes into CDs for $50 for the

first CD and $6 for each duplicate. This is a very time consuming process — especially if there's digital noise reduction involved. I've noticed two major problems with my first very enthusiastic customers.

First they seem to understand that mastering a CD is a "special" process — until they realize that it's done on a computer. Then they believe that it's an *instant* process and they expect their CD in hours. They want to watch me do it, as if it will take minutes instead of days. They also want me to design color CD inserts for that price.

Photo restoration is probably the most time-consuming process I can think of. Depending on the picture, I can spend hours to days removing marks and re-constructing faces. My standard fee for that is $60 per picture. No one does it for less, but since my clients know I use a computer and not re-touching oils, some feel that the computer does the work completely on its own like in the movies.

I had a meeting with clients Saturday where they simply wouldn't accept that I couldn't magically remove vocals from a popular song. They were also incredulous that it cost me anything to make dupes. That's right! Blank CDs aren't free!

I've noticed a continuing devaluing of time spent behind a keyboard. In The 80s, any computer technician was a wizard. Now we're grunts. There are so many things we do on computers that are not automatic. I simply own no program that does any real "work" while I sit with my arms folded.

I once did optical character recognition for a client who felt he shouldn't have to pay me because "I just let a computer do it." Actually computers aren't very good at reading. I did a lot of typing because the computer tended to thing that a "B" was a "3" and so on. It took me about two hours of tedious work to get it done. To have my hard work devalued like that angered me.

In what other field does the tool get the credit? A good photographer's camera doesn't get the credit. A sculptor's hammer and chisel aren't praised. A tip of the hat to all computer operators out there — especially Commodore editors, who have fewer resources. Fight the power!

REMEMBER WHEN...

A Computer Was Something On TV From A Science Fiction Show

A Window Was Something You Hated To Clean....

And Ram Was The Cousin Of A Goat...

Meg Was The Name Of My Girlfriend

And Gig Was Your Middle Finger Upright

Now They All Mean Different Things And That Really Mega Bytes

An Application Was For Employment

A Program Was A TV Show

A Cursor Used Profanity

A Keyboard Was A Piano

Memory Was Something That You Lost With Age

A CD Was A Bank Account

And If You Had A 3 1/2' Floppy You Hoped Nobody Found Out

Compress Was Something You Did To The Garbage, Not Something You Did To A File

And If You Unzipped Anything In Public You'd Be In Jail For A While

Log On Was Adding Wood To The Fire

Hard Drive Was A Long Trip On The Road

A Mouse Pad Was Where A Mouse Lived

And A Backup Happened To Your Commode

Cut You Did With A Pocket Knife Paste You Did With Glue

A Web Was A Spider's Home

And A Virus Was The Flu

I Guess I'll Stick To My Pad And Paper And The Memory In My Head

I Hear Nobody's Been Killed In A Computer Crash

But When It Happens They Wish They Were Dead

—Poet Unknown

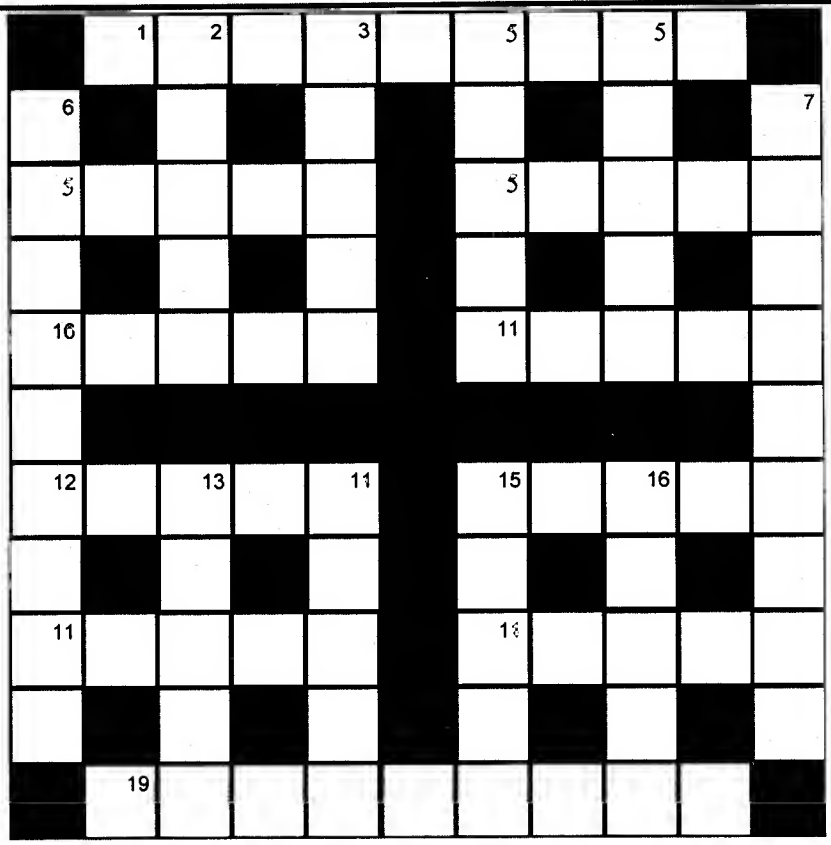
Cryptic #57

By Fender Tucker

ACROSS
1. O, after two scores, is one point away from winning a game of tennis (5-4)
8. Noisy ceremony might be religious? (5)
9. Mold a playful soldier (5)
10. Bert's friend really messed up Irene (5)
11. What this British status symbol does, hopefully? (5)
12. Rabbits somehow share (5)
15. To the left is Bob, an Indian governor (5)
17. Occurring frequently, per the decade (5)
18. Some guys destroyed Oregon's capital (5)
19. Cross the goal, feel blue (9)

DOWN
2. Musical gland? (5)
3. Gotti, the mobster, hides 10% of his income (5)
4. A busted rifle puts a guy in prison till he dies (5)
5. Mercenary infiltrates coven, almost (5)
6. Demolished fort, where there's a penalty shot (4,5)
7. Off the bat, this is where to go (5,4)
13. Comparison of rodent input/output? (5)
14. Noisy Seattle star? (5)
15. Called up, demand endlessly (5)
16. Be sad underneath (5)

Answers in next month's LOADSTAR Letter.



Answers for LOADSTAR LETTER #56 Cryptic

ACROSS

1. LEVER - REVEL backwards
4. BRAND - Double definition
7. CILIA - AIL + IC backwards
8. OLDER - Anagram of OL RED
9. SIN - SING minus the G
10. SHEET - SHE + ET
12. DENSE - DENS + E
14. VELDT - Hidden in clue
17. HOTEL - HOT + EL
20. HOE - Homophone of Ho
21. TONER - TONE + R
22. DREAM - Anagram of ARMED
23. SINEW - Anagram of IS NEW
24. ENTER - Hidden in clue

DOWN

1. LACES - PLACES minus the P
2. VALVE!- Hidden in clue
3. ROAST - Anagram of SO inside RAT
4. BLOND - Hidden in clue
5. ADDON - AD + DON
6. DIRGE - Anagram of RIDGE
11. END - Half of THE END
13. EGO - Anagram of Geo
14. VOTES - Anagram of STOVE
15. LINEN - Anagram of LENIN
16. THREW - Homophone of THROUGH
17. HEDGE - Pun
18. TREAT - Pun on TRICK OR TREAT
19. LAMER - Double definition

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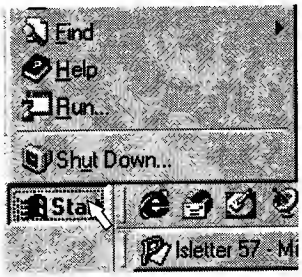
ABBOTT AND COSTELLO MEET WINDOWS 95

Costello: Hey, Abbott!
Abbot: Yes, Lou?
Costello: I just got my first computer.
Abbot: That's great Lou. What did you get?
Costello: A Pentium II-266, with 40 Megs of RAM, a 2.1 Gig hard drive, and a 24X CD-ROM.



Windows 95 must be "shut down" before you can turn off the computer. This makes sure that all important data has been saved. The "shut down option" is part of the "Start" menu.

Abbot: That's terrific, Lou.
Costello: But I don't know what any of it means!!
Abbot: You will in time.
Costello: That's exactly why I am here to see you.
Abbot: Oh?
Costello: I heard that you are a real computer expert.
Abbot: Well, I don't know-
Costello: Yes-sir-ee. You know your stuff. And you're going to train me.
Abbot: Really?
Costello: Uh huh. And I am here for my first lesson.
Abbot: O.K. Lou. What do want to know?
Costello: I am having no problem turning it on, but I heard that you should be very careful how you turn it off.
Abbot: That's true.
Costello: So, here I am working on my new computer and I want to turn it off. What do I do?
Abbot: Well, first you press the Start button, and then-
Costello: No, I told you, I want to turn it off.
Abbot: I know, you press the Start button-
Costello: Wait a second. I want to turn it off. Off. I know how to start it. So tell me what to do.
Abbot: I did.
Costello: When?
Abbot: When I told you to press the Start button.
Costello: Why should I press the Start button?
Abbot: To shut off the computer.
Costello: I press Start to stop?
Abbot: Well Start doesn't actually stop the computer.
Costello: I knew it! So what do I press.
Abbot: Start
Costello: Start what?
Abbot: Start button.
Costello: Start button to do what?
Abbot: Shut down.
Costello: You don't have to get rude!
Abbot: No, no, no! That's not what I meant.
Costello: Then say what you mean.
Abbot: To shut down the computer, press-
Costello: Don't say, "Start!"
Abbot: Then what do you want me to say?
Costello: Look, if I want to turn off the computer, I am willing to press the Stop button, the End button and Cease and Desist button, but no one in their right mind presses the Start to Stop.
Abbot: But that's what you do.
Costello: And you probably Go at Stop signs, and Stop at green lights.
Abbot: Don't be ridiculous.
Costello: I am being ridiculous? Well. I think it's about time we started this conversion.
Abbot: What are you talking about?
Costello: I am starting this conversation right now. Good-bye.

10 WORDS THAT DON'T EXIST, BUT SHOULD

1. AQUADEXTROUS (ak wa deks' trus) adj. Possessing the ability to turn the bathtub faucet on and off with your toes.

2. CARPERPETUATION (kar' pur pet u a shun) n. The act, when vacuuming, of running over a string or a piece of lint at least a dozen times, reaching over and picking it up, examining it, then putting it back down to give the vacuum one more chance.

3. DISCONFECT (dis kon fekt') v. To sterilize the piece of candy you dropped on the floor by blowing on it, assuming this will somehow remove' all the germs.

4. ELBONICS (el bon' iks) n. The actions of two people maneuvering for one armrest in a movie theater.

5. FRUST (frust) n. The small line of debris that refuses to be swept onto the dust pan and keeps backing a person across the room until he finally decides to give up and sweep it under the rug.

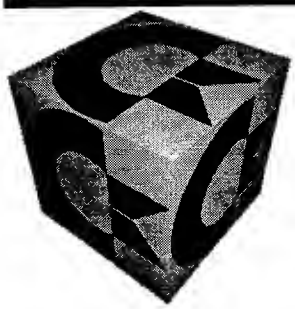
6. LACTOMANGULATION (lak' to man gyu lay' shun) n. Manhandling the "open here" spout on a milk container so badly that one has to resort to the illegal' side.

7. PEPPIER (pehp ee ay') n. The waiter at a fancy restaurant whose sole purpose seems to be walking around asking diners if they want ground pepper.

8. PHONESIA (fo nee' zhuh) n. The affliction of dialing a phone number and forgetting whom you were calling just as they answer.

9. PUPKUS (pup' kus) n. The moist residue left on a window after a dog presses its nose to it.

10. TELECRASTINATION (tel e kras tin ay' shun) n.The act of always letting the phone ring at least twice before you pick it up, even when you're only six inches away.



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